

East Grand Forks, MN Meeting Notes

AJ Bussan – SCRI Update

The SCRI program is producing 20,000 units of MT for seed production. There is the need to define a process for selecting which varieties would go into seed production. Initial selections were based on very limited information obtained early in the development of the program. First selections were made less than 5 months after the initiation of the program. Information obtained from field observations and initial acrylamide numbers were utilized for selections by the SCRI Grant to begin seed production on the first 5 clones and 15 clones for field agronomic tests.

The SCRI Grant has 15 total clones that have been cleaned up. The SCRI Program missed a year in selections due to concerns about support for seed production from the stakeholders as well as gaining alignment from the associated breeding programs. Proper documentation with the various breeding programs now appears to be in place with the SCRI Program. There is no seed production within the NFPT Program. The NFPT Program is the source information for making variety selections within the SCRI Program.

If appears is if the meeting attendants believes there should be a sub-committee created that would assist in the selection of clones for continuation into the SCRI Program as defined within the SCRI Grant.

Obtaining clean material for production, plants, mini-tubers and seed is incorporated into the SCRI Grant. It appears that each breeding program is different as it pertains to the clean up of material. The SCRI Program can clean up clones at the U of WI. Some programs such as NDSU have clean tissue of every clone they enter into the NFPT Program. There is no need to clean material from some of the programs. The cost of cleaning up material and making initial small amounts of mini-tubers is quite low at the U of WI. This is due to the other work going on within the different programs and the leveraging of dollars across these different programs.

There are different rules regarding patents and PVP and how the information can be utilized. MTA's were also discussed although there was no resolution on this item. It was discussed that any program that submits material to the national program understands that the material is intended to be utilized by all participants funding the program. The material is not intended to be exclusive to any one company or individual. If the breeders are thinking of exclusive agreements with material it should not be entered into the program. The USPB has communicated this message to all of the breeders and was confirmed by those breeders present at the meeting.

There was a point made that instead of making seed in a centralized location like the U of WI why not have all of the breeding programs make the seed within their own programs. There has been some resistance from some programs to release material for continued research purposes.

Points mentioned for going forward with seed for research:

Start to clean clones that are not already clean?

Do we want to produce NFT's for the clean clones?

Do we want to produce more seed on a larger scale?

There was a proposal to go ahead and submit a number of clones into the SCRI program for clean up of material if not already clean. There is a motion to select a subcommittee and it was unanimously agreed.

The participants discussed the composition of the seed sub-committee. It was recommended that the sub-committee consist of the following:

Seed Selection Sub-Committee

One member from each of the processors making financial contributions.

Two state association managers from states making financial contributions.

Two participating breeders from different regions, East and West.

A representative from the USPB.

Two co-chairs, one from the SCRI and one from the NFPT programs.

NFT mini-tubers are being produced for the following varieties:

AF4296-3

ND8229-3

AC96051-1RU

A02507-2LB

A02138-2

There is up to 1,000 cwt of W6234 certified seed available. This seed has been produced by a private individual and is not part of the SCRI Grant.

Seed committee will determine how the seed is distributed to the processors. The sub-committee will determine which varieties are entered into the program for continuation of research on a larger scale. Committee will determine which clones will be entered into the QSR analysis process.

QSR Discussions:

It was discussed that we should perhaps add sugar ends to the analysis for all of the clones in the program for crop year 2013.

How are we going to do that is the question? There are several different options on how we could do that going forward.

NDSU is doing sugar end analysis on all varieties that are submitted into the program. What are the other breeders doing with respects of sugar ends? The

Wisconsin project is doing in house sugar end analysis. At NDSU if there is any difference between the stem-end and the rest of the tuber then it is recorded.

There are several key attributes that limit the ability of a variety to continue in the program that could be pre-screened before the QSR analysis. Those include sugar-ends, limp units, fluffy and color variation. The material for this analysis is available from EGF when the par-fried potatoes are being processed for acrylamide analysis. It was recommended that the par-fried material would be shipped to the five breeder locations for the analysis of the four attributes. Training is necessary for proper analysis. The processors agreed to get together and discuss how to train the respective breeding programs. This will need to be conducted prior to the first analysis scheduled to take place on the February material coming from the EGF facility. It was also recommended that new material coming into the NFPT program be pre-screened with standard protocol for stem end or sugar ends by the breeders. McCain and Simplot agreed to take the lead on the training of the different programs. Training will need to be completed before the February analysis.

McCain and Simplot can each run 30 QSR samples. Samples will be run in October/November and May/June. Clones selected for QSR should consider those clones that have already passed a QSR and are in the seed/agronomic development. This will be a first priority for the newly selected seed sub-committee. Committee will need to be selected and make recommendations within the next two weeks for the submission to the fall QSR analysis.

QSR meeting in Caldwell, ID is set for December 17th.

SCRI agronomic trials provide more consumer attribute evaluation opportunities. There trials have produced 500 pounds of 14 different clones (plus Burbank check) in replicated plots at the six different site locations (ID, WA, OR, MN, WI, ME). This represents 3,000 pounds of material for each of the different varieties. There are in-season and harvest data collection categories. This material could be utilized for additional QSR testing. Consumer testing will be done on 20 pounds of each that has been sent to EGF, MN.

Data file that Yi Wang has been working on under the SCRI grant for collection of NFPT information was demonstrated and discussed. It was also discussed how this information might be password protected for use to program cooperators.

QSR Correlation between processors:

Two tests at each processor November and May.

We need to have the data across the same traits and same scale.

McCain and Simplot are going to work together to harmonize the information and process.

McCain can run 30 samples and Simplot can run 30 samples at each of the two selected dates.

There is a question regarding recording all of the traits in the QSR. It was suggested that perhaps some of those do not need to be recorded. Which traits needs to be clarified by the processors.

McCain is going to try to match the process at Simplot.

McCain is going to see if they can get a sensory person involved in the project now that they are running QSR too. McCain will follow up on this.

AJ will be sending out a memo with what quantities of material are available for analysis this fall/winter. AJ will be asking each processor for quantities they would like and setting a deadline for requests. Going forward a process for fair distribution of material will need to be established so that each processor has equal opportunity to access and test SCRI materials.

Jeff Endelman spoke on genetic trait associations.

The cost of genotyping a clone is around \$80/clone. This gives you around 5,000 markers. Jeff wants to know if we want to try to start doing genotyping. It would cost around \$10-15,000 to do all the NFPT varieties.

There were discussions regarding who owns or could own naturally occurring genes. It was discussed that naturally occurring genes cannot be owned. It is not clear if this applies to the concerns raised?

Marker platform is open information like MSU and Cornell.

The material for NFPT genotyping would most likely have to come from the breeding programs to make sure it was true to type.

AIS will build the next 3 year budget and get that out to all stakeholders for review.

It was requested to build the budget based on what the program needs to do to accomplish what was discussed in this meeting versus sticking with a predetermine amount of money.

AJ is going to check to see when the SCRI is out of money for the WI and ME trials.

AJ will also confirm the amount of analysis money left in the SCRI grant. When budgets are built for the NFPT these considerations will be incorporated into the budgets. It was requested that a budget be constructed based on what the program needs not based on available funding.

Additionally Sanjay Gupta is going to run an analysis of all 78 clones to attempt to establish an enzymatic marker for sugar ends. This would allow the respective programs to screen germ plasma much more quickly than what is currently being done in the industry.

Items to share include:

PowerPoint presentations from AJ.

Summary of note and assignments.

Master list of the people that attended the meeting.

Budgets for FY2015-2017 (USPB Fiscal Years)

How do we do better at sharing the information we are generating. AIS is going to set up a google location for storing the files of the program. How do we get

consensus on what information we can share? The information will be password protected. It is open to the public but one must gain a password to gain access. The U of WI/SCRI website should also be password protected, AJ and Paul Bethke will look into this.

It was requested that the USBP set up a portal to the SCRI data warehouse so that industry representatives can find it more easily. The NFPT and USBP representatives will look into the feasibility of making that happen.

We are going to try to have a presentation for every state organization meeting this winter. State managers will need to invite representatives from the NFPT/SCRI to attend the meetings and present.

The states all have a news letter and we should be sending news stories to the states. USBP receives these news updates on a regular basis.

The Expo is going to have an update in the process area.

The seed sub-committee is going to also review the dissemination of information to the greater industry.

Follow up items:

1. Establish sub-committee for seed, information flow, etc. consisting of 11 members (4 processors, 2 state managers, 2 breeders, 1 USBP representative, 1 SCRI representative, 1 NFPT representative) – David Parish & Meredith Myers.
2. Select clones for SCRI NFT Production – Sub-Committee
3. Establish the distribution of seed within the program that is equitable to the processor stakeholders. Sub-Committee
4. Establish test for sugar ends, limp units, color variation and fluffy. Test will be conducted in February with material from EFG. Five trail sites will conduct the tests. - Simplot, McCain & Paul Voglewede.
5. Develop a standard QSR protocol between McCain and Simplot with standardized data fields, analysis and processes. – Simplot and McCain.
6. Identify a sensory person at McCain for program participation. – Jim Fuller.
7. Communicate the material that is available for analysis from the SCRI Program this year and quantities. – AJ Bussan
8. Prepare proposal for genotyping the NFPT Clones. – Jeff Endelman
9. Sharing of information:
 - a. PowerPoint – Yi and AJ
 - b. Summary of EGF analysis – Paul Voglewede & David Parish
 - c. Master List of Attendants – Ashley Moore
 - d. Budgets for FY 2015-2017 (USBP Fiscal Years) Crop years 2014-2016.
10. Password protect the SCRI website. – Paul Bethke & AJ Bussan
11. Create a google doc location for NFPT files that is password protected. Ashley Moore & David Parish
12. Establish a link on the USBP website for the SCRI website. Meredith Myers
13. Provide Sanjay Gupta with NFPT clones for enzyme analysis – Paul Voglewede